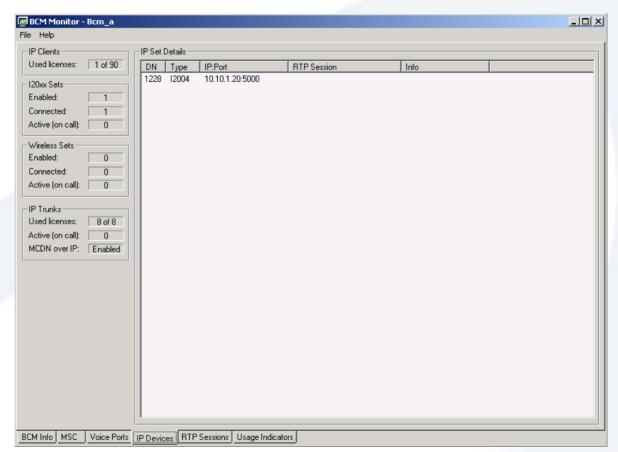
BCM Monitor Tool – IP Devices Tab

- The IP devices Tab shows all active IP clients on the BCM. (i20XX or Symbol)
- Can be used to monitor activity of sets.

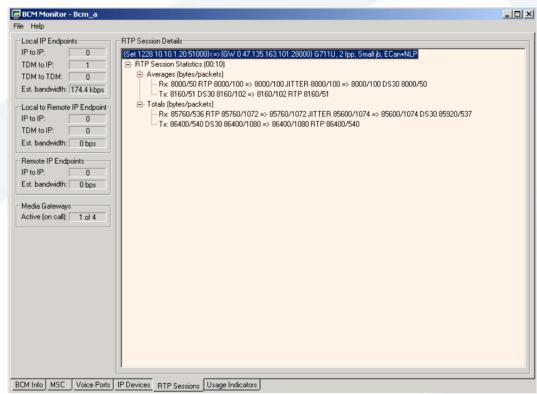




BCM Monitor Tool – RTP Sessions Tab

- RTP sessions Tab shows RTP session statistics of any IP set using a media gateway on the BCM.
- For IP Sets going IP to IP this shows connection information between the sets.

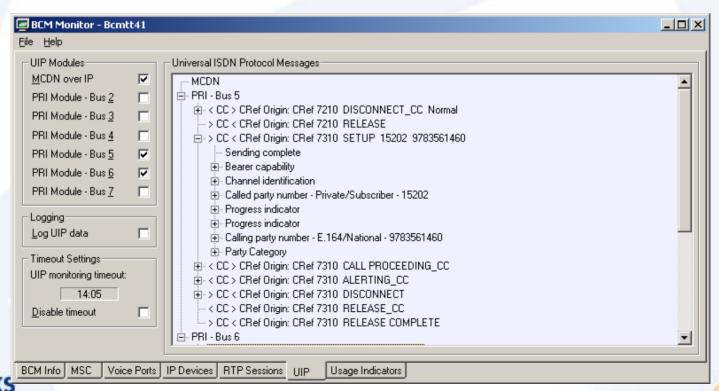
•This tab is very useful for troubleshooting 1 way speech path issues with IP sets. You can see if the BCM is receiving/sending IP packets.





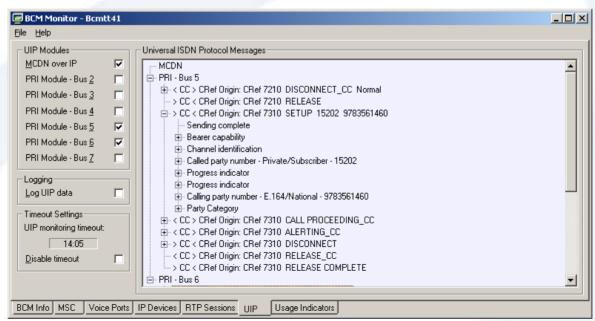
BCM Monitor Tool – UIP Tab

- Universal ISDN Protocol (UIP) Tab shows D-Channel activity for any PRI or IP call in the BCM.
- The real time monitor displays the last 20 messages for that module.
- Simply select which modules you would like to monitor.



BCM Monitor Tool – UIP Tab (cont'd)

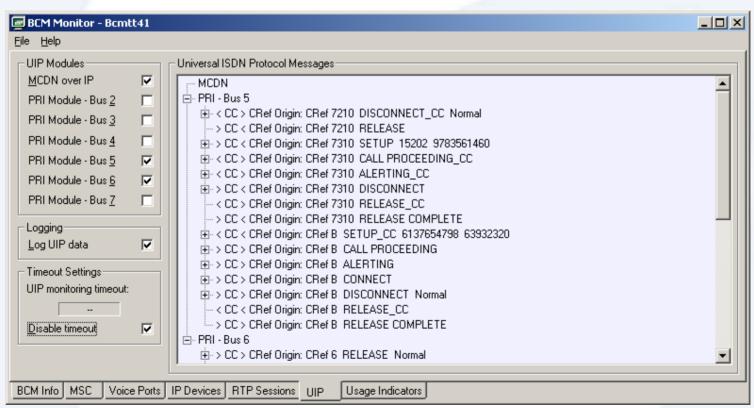
- Each call within UIP is given a unique Call reference value to help track the calls.
- Within UIP direction of messages is indicated by arrows <>
- Some decoding is also provided within the UIP tab. Information such as Called Party number, Calling Party Number and TON/NPI values are easily identified.
- Anything not decoded is provided in Hex for translation by Nortel Network Support.





BCM Monitor Tool – UIP Tab (cont'd)

 By default the UIP is set to monitor for only 15 minutes and timeout. If extended monitoring is desired you need to disable the timeout.





UIP Tab (cont'd)

- To capture information beyond the 20 messages shown on the real time screen logs can be captured to your PC.
 - Logs are created for each individual Module.
 - Logs are named UIPPriX.log where X is the Module number.
 - Logs are stored in the same directory where BCM Monitor is located on your PC



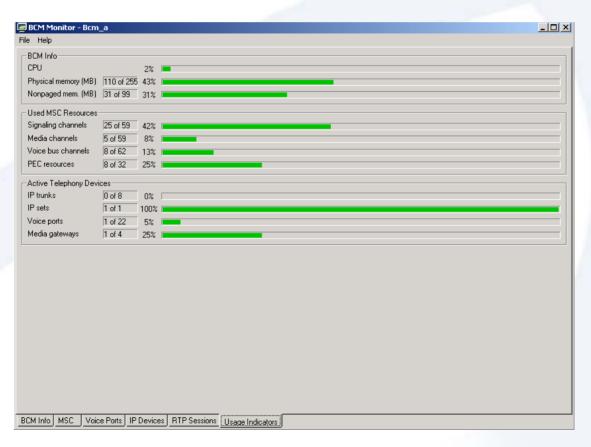
UIP Tab (cont'd)

This is what a UIP log looks like:

```
🌌 UipPri5.log - Notepad
                                                                                                      File Edit Format Help
08/22/02
11:04:32 < CC < CRef Origin: CRef C SETUP_CC
        Sending complete
        Bearer capability
                13 00 81 90 00 00 A3 00 00 00 00 00 00 00
        Channel identification
                OD 00 A1 00 83 00 01 00 9C 00
        NA - Facility
                07 00 11 8B 17 00 01 00 A1 13 02 01 01 06 04 2B 0C 09 00 80 08 4B 31 20 53 52 20 49 50
        Calling party number - E.164/National - 6137633873
                07 00 21 80 0A 00 06 01 03 07 06 03 03 08 07 03
        Called party number - Unknown/Unknown - 92286869
                03 00 80 00 08 00 09 02 02 08 06 08 06 09
11:04:32 > CC > CREF Origin: CREF C CALL PROCEEDING
        Channel identification
                OD 00 A9 00 83 00 01 00 1C
11:04:34 > CC > CRef Origin: CRef C PROGRESS
        Cause - Normal unspecified
                05 00 82 00 9F
        Progress indicator
                03 00 82 81
        Progress indicator
                03 00 A1 94
```

BCM Monitor Tool – Usage Indicators Tab

 Usage Indicators Tab can be used to monitor system resources and BCM platform information. The indicators will turn from green to red when resources are near capacity.





5 Minute Break





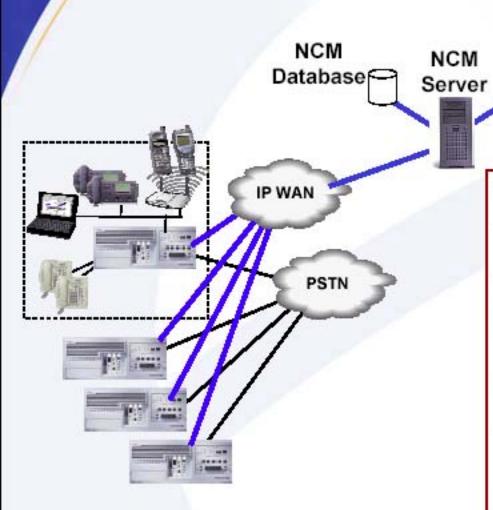


BCM Network Configuration Manager (NCM)

- Intro / Requirements / Supported Functionality
- Creating Objects "folders / Users / Groups"
- Function security / Permissions
- Imports / Re-imports / Exports / Compare
- File management
- Locking item(s)
- Scheduling jobs / E-Mail notification
- Web Links / Application Links
- Wizards
- Maintenance (Changing Port and Logs)



Network Configuration Manager





NOC Network Configuration Manager (NCM) workstation

- →Network wide inventory
- →Single centralized management access point
- Client / Server application
- Administration / Security audit log
- Configuration file management
 - Configuration compare
- Scheduled Configuration Backup & Restore
 - Archive file management
- Multi-site config & distribution of system, application & set information
 - Configuration Wizards
- Configuration reporting / printing
- email notification of events



NCM - Introduction

Description	Part Numbers	
One of these authorization codes is required for every BCM in the network.		
BCM Network Configuration Manager Software Authorization Code	NTKC0083	A0890618
One of the packages below is needed for your server software.		Y
BCM Network Configuration Manager 2.0 (250 systems)	NTAB9855	A0982859
BCM Network Configuration Manager 2.0 (2000 systems)	NTAB9856	A0982860



NCM - Requirements

Requirements.

- Server: Intel Pentium III, 700 MHz or faster 512 MB 4 GB Windows 2000 Professional Service Pack 2 or Windows NT 4.0 (Server or Workstation) and Service Pack 6a or greater, Windows XP
- Client: Win 95, 98, 2000 or XP.

Protocols used by NCM.

SNMP, FTP, Telnet and LDAP.

The NCM database:

- Cloudscape is a silently-installed, embedded database. (less than 2500 devices)
- Oracle 8.1.7 is a separately installed product.

Two Releases planned to date:

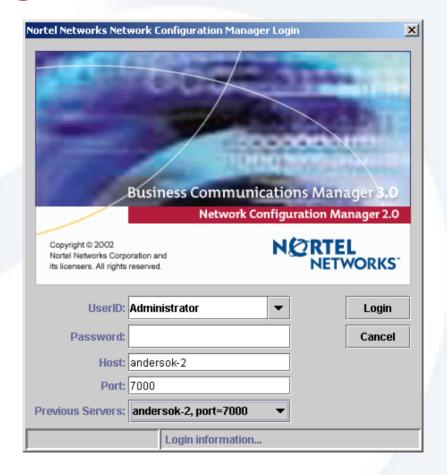
- Release 1 NCM Launched at Feature Pack 1 Timeframe
- Release 2 NCM Launches at BCM 3.0



NCM 2.0 client log on screen

Information required for the Client Log on screen.

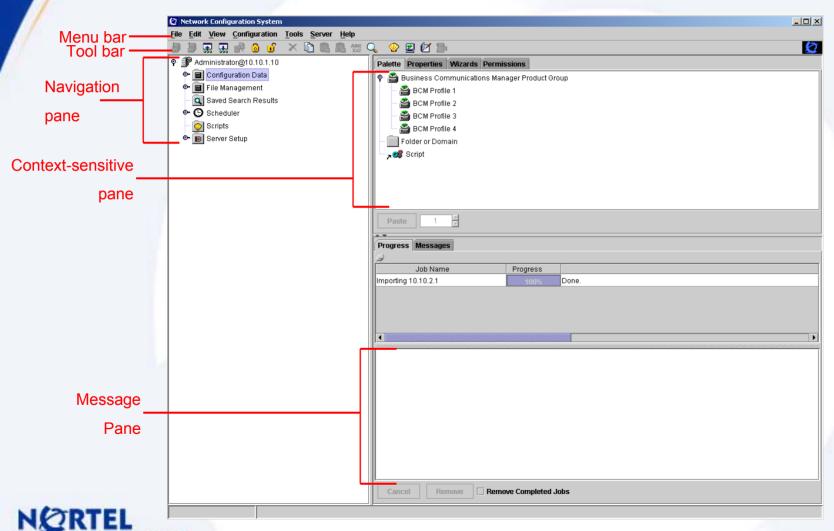
- User ID default is Administrator
- Password default Blank
- Host: IP address or host name
- Port default is 7000





NCM Window

After the user logs on they will get the Main NCM client workstation window.



NCM Window (cont'd)

Configuration Management Client desktop

- A device's Configuration Data is retrieved and interpreted and then represented in the tree through the process of Importing
- A device's Configuration Data in the tree can, in inverse, be Exported back to a device
- Either entire configuration or individual parameters may be either imported or exported.

File Management

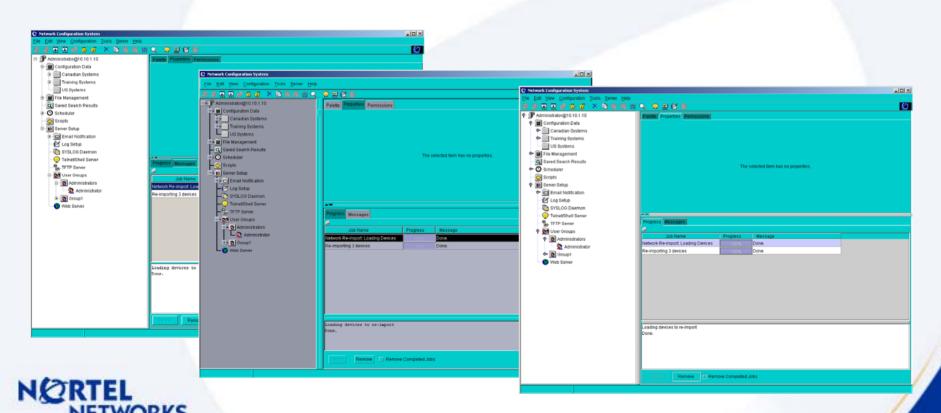
- A device's Configuration File (running configuration and/or startup configuration) is retrieved and represented as an archived file through the process of **Archiving** – this is equivalent to BRU backup on BCM
- An Archived Configuration File can, in inverse, be sent back to a device's running configuration or startup configuration – this is equivalent to BRU restore on BCM



NCM Window (cont'd)

View Preferences

- The user can change the "Look and Feel" of the work area.
 - Windows, Motif, and Metal
 - Can change color schemes



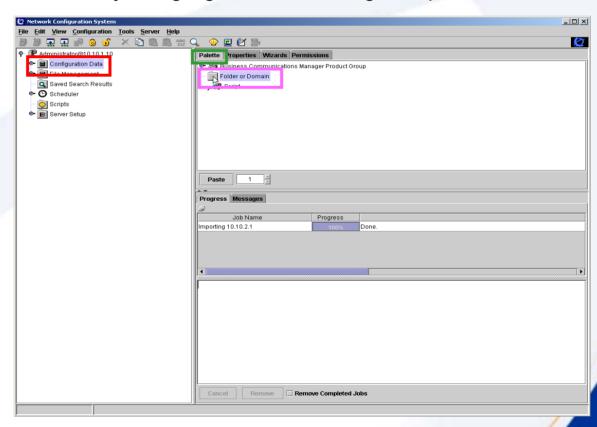
NCM - Creating Objects

Creating an Object

- In the navigation pane, highlight the location you want to create the object in.
 This can be a folder or user group.
- In the context-sensitive pane, click the Palette tab. The palette changes the options available based on the object highlighted in the Navigation pane.

In this example a folder will be created

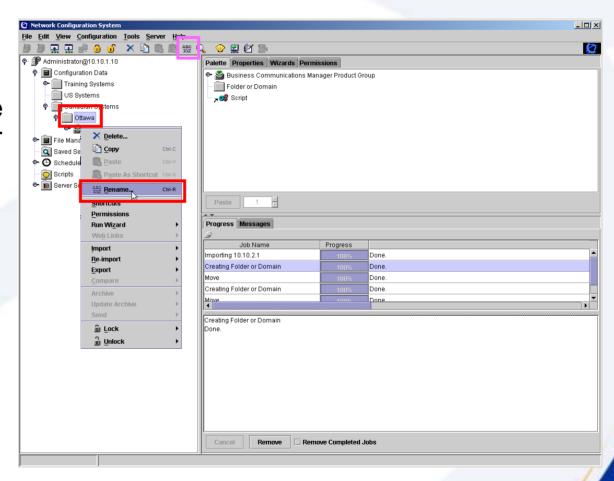
- Drag the object you wish to create from the palette to the navigation pane.
- This will create an object in the Navigation pain with a default name.





NCM - Renaming a folder

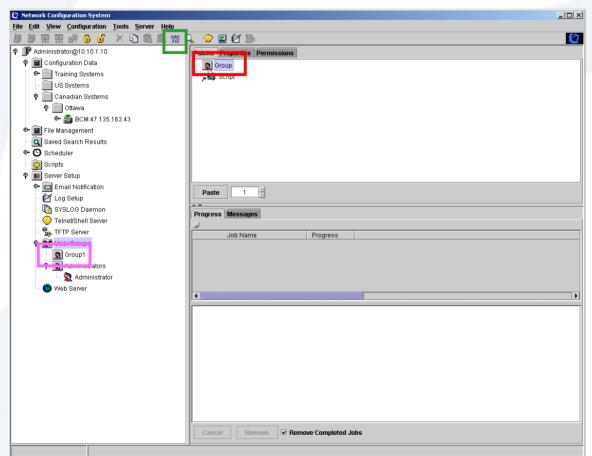
- Once the folder is created rename it.
 - Right click on the item to rename or click on the icon in the tool bar.





NCM - User group and users

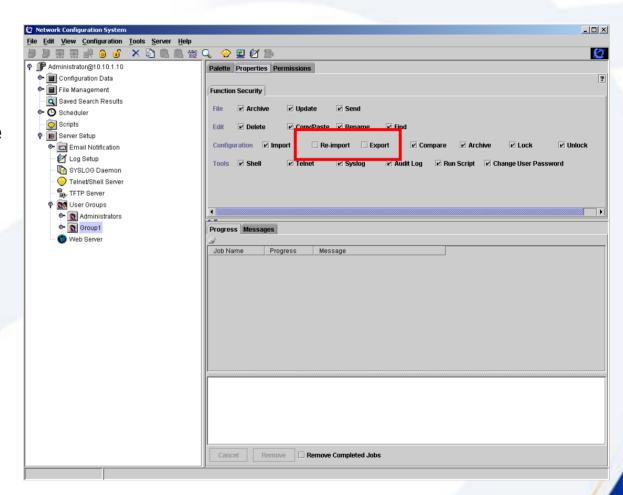
Users and user groups can be created in the same way as Folders.





NCM - Function Security

- Once a user group is created permissions can be changed to restrict user access.
- Be Caution when changing the administrator account it is possible to lock your self out of NCM.





Importing BCM configuration data

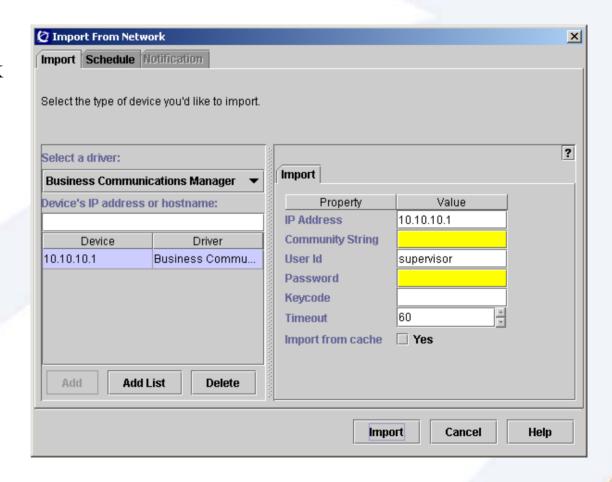
Importing the data from a BCM 3.0 system

- The NCM server pulls an inventory file from the BCM and stores it in the NCM servers data base. This is a snap shot of the system in time. The Client application can then display the system Configeration in a tree similar to the UI of unified manger.
- Note the Inventory is run at 2:00 am system time everyday so change to the system that have happened after this time will not be reflected in the NCM configuration data
- Each BCM in the Network must have a Key code for NCM to access its inventory.
- NCM can apply the Key code to the system when it first access the system.



Adding NCM Key Code to BCM 3.0

- When importing A BCM from the network the Key code can be added using the import information screen
- The Key Code can also be added thought the Unified Manger.

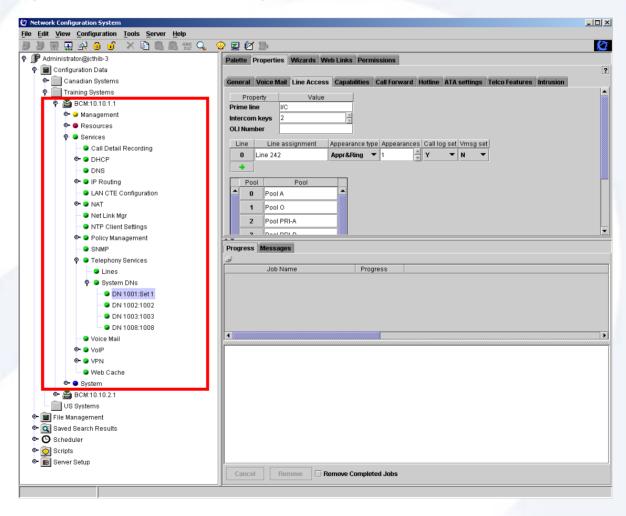




NCM - Configuration Data - Imported

This is an example of a BCM's data imported into the

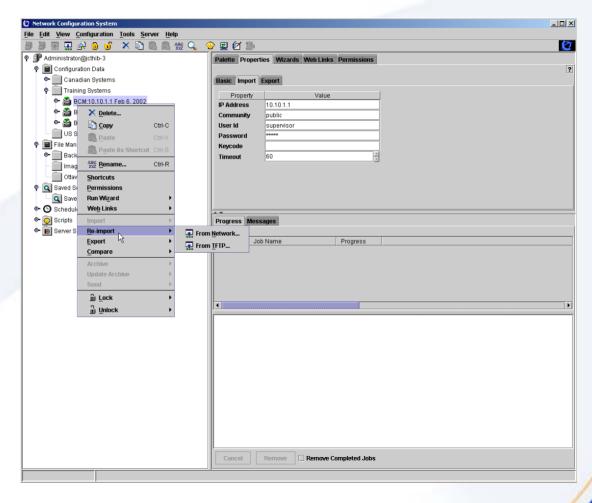
database.





NCM - Configuration Data - Re-import

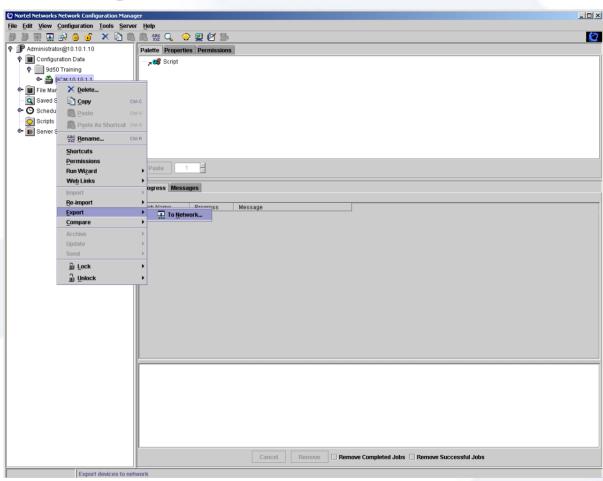
- To Maintain the data base the configuration needs to be re-imported form the network when programming changes are made.
- This can be scheduled to happen unattended.





NCM - Programming - Export

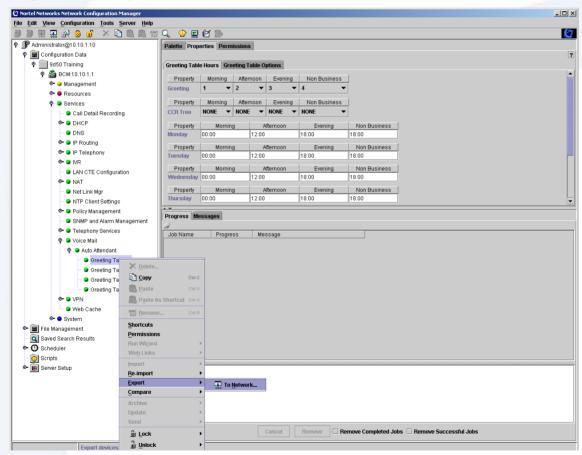
- Exporting data to the BCM is new functionality with NCM 2.0.
- Export will allow user to apply changes to BCM individual settings or all changes to the data base since the last import.





NCM – Programming – Export

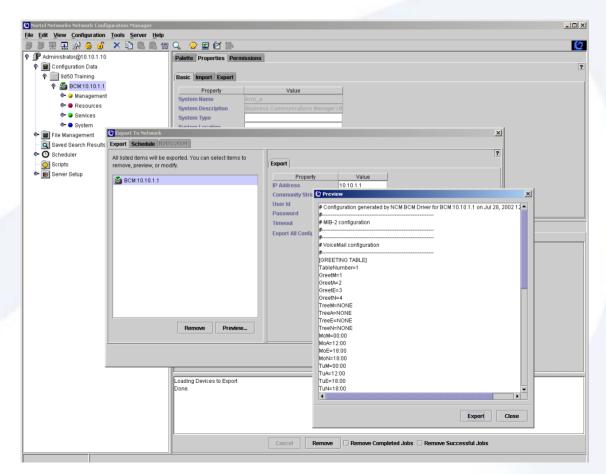
Export can be done to multiple systems or to a sub-node within a system. For e.g. export only Greeting Table 1 in BCM:10.10.1.1



NETWORKS

NCM – Programming – Export

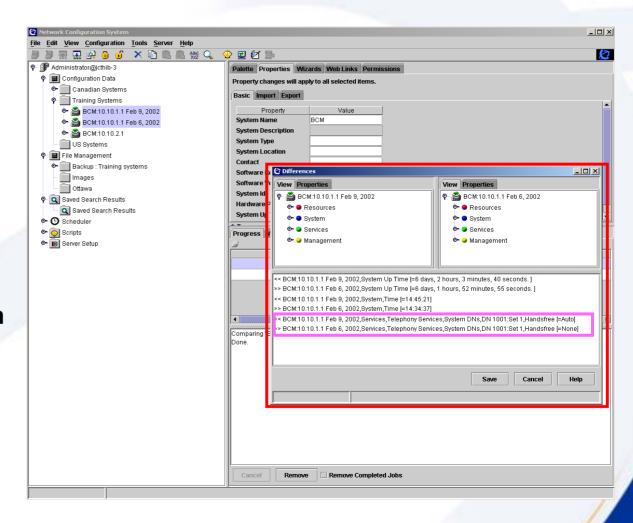
 NCM can preview the data before export. In this case, parameters of Greeting Table 1 will be changed when exported.





NCM - Configuration Data - Compare

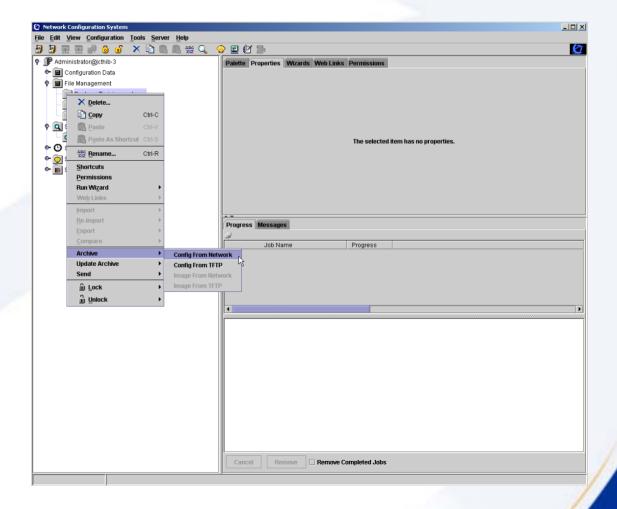
- A Compare of the System can be done with the Network, or between the selected items in the data base.
- In this example the Difference between the two systems is the Handsfree.





NCM - File Management - Archive

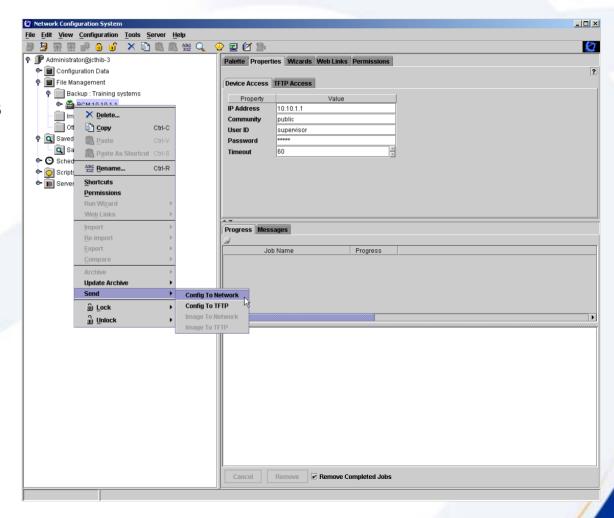
 Archiving the BCM will launch the BRU backup routine and place the backup in the data base of the NCM server.





NCM - File Management - Send

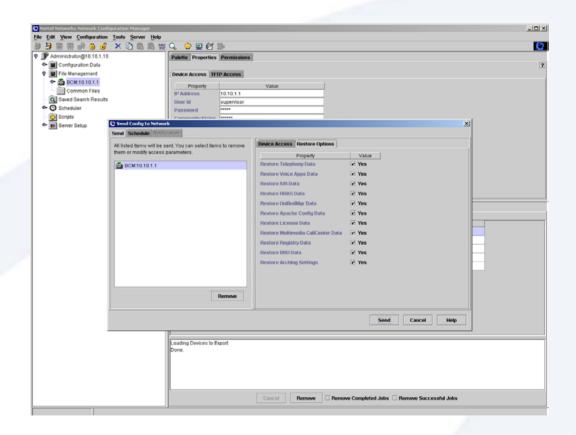
- The Send process launches the BRU restore.
- Select which Archive to Send to the Network.
- Click on the Select Components tab.





NCM - File Management - Send (cont'd)

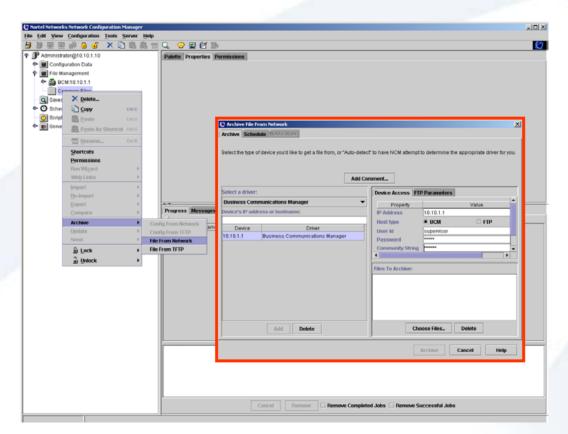
 Select the Components to Send to the Network. These are the same choices that you have when using BRU





NCM – Programming – Archive Common Files

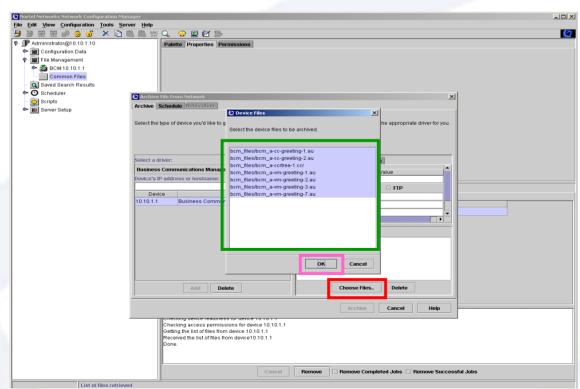
Common Files are files that can be copied from one BCM to another. AA greeting files, CCR trees, IVR prompts and scripts are examples of common files.





NCM – Programming – Archive Common Files

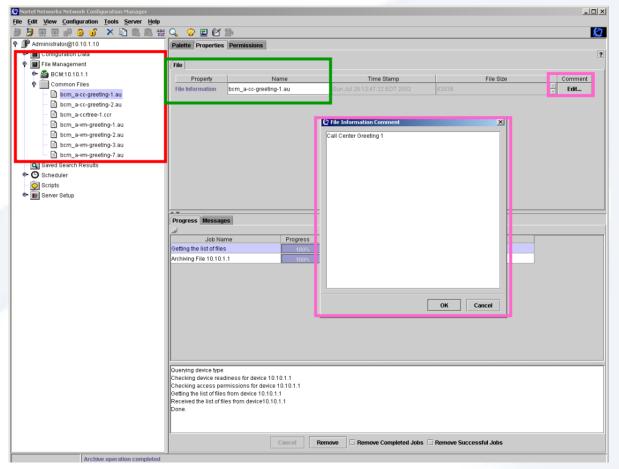
- Click "Choose Files..." to select which files you want to archive from the BCM.
- Highlight desired files and click "OK". File types are identified by the file extension (.ccr – CCR tree, .au – AA/CallCenter prompt).





NCM – Programming – Archive Common Files

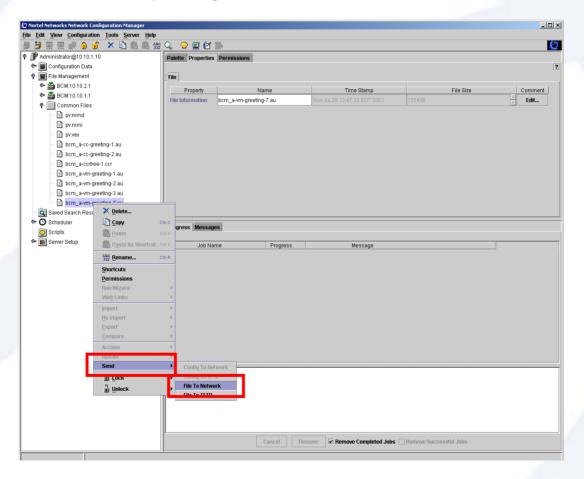
• File properties are shown on the right. Files can be renamed by editing the 'Name' column in the table. A comment can be added to the file.





NCM – Programming – Sending Common Files

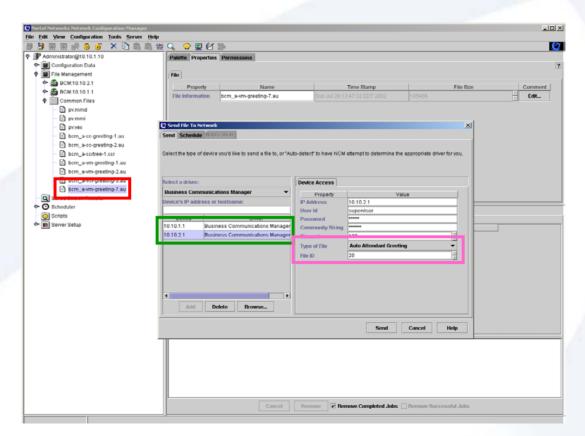
Files can be sent to multiple systems.





NCM – Programming – Sending Common Files

Files can be sent to multiple systems. In this example the file "bcm_a-vm-greeting-7.au" is being sent to 10.10.1.1 and 10.10.2.1 as "Auto Attendant greeting # 20".



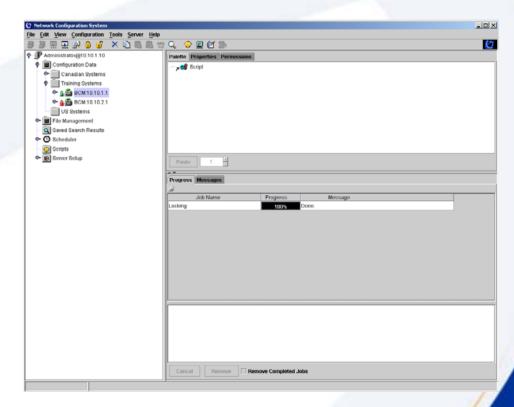


NCM - Locking an item or sub tree

- The user might want to lock an item or items during modification, so that no other user can modify that parameter.
- The user that locks the item or the sub tree will see a green lock. 🖺



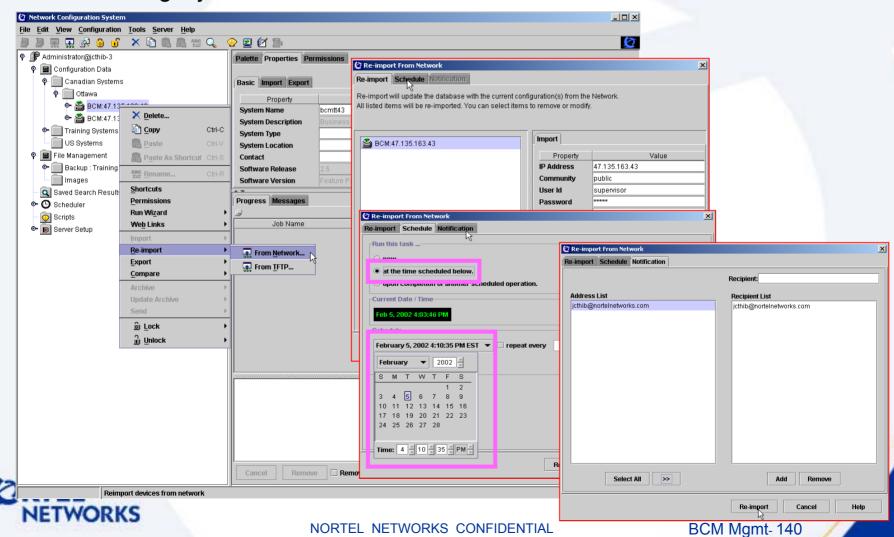
The other users will see a red lock 4 beside the item(s).





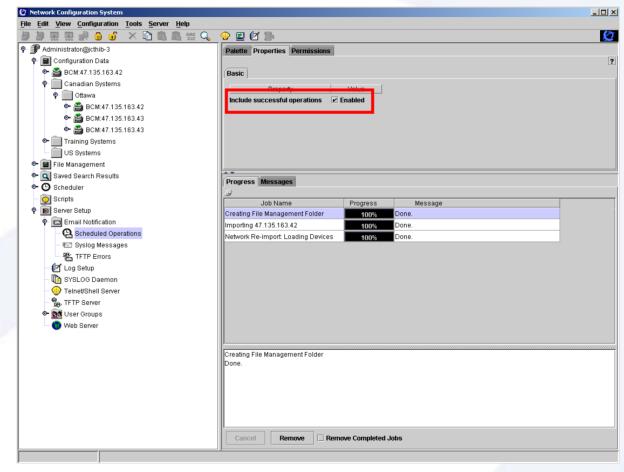
NCM - Scheduler - E-Mail notification

Scheduling a job with E-Mail notification.



NCM - Scheduler – E-Mail notification - Setup (cont'd)

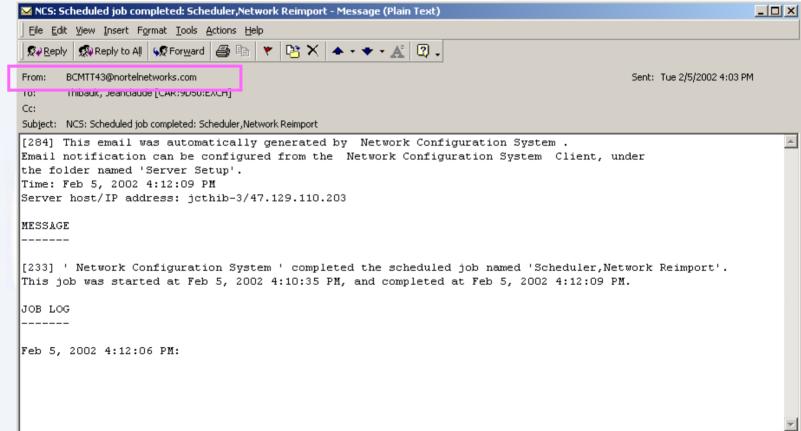
 NCM will only notify the recipient via E-Mail if a job was unsuccessful unless the "Include successful operations" is enabled





NCM - Scheduler - E-Mail notification

E-Mail notification result.

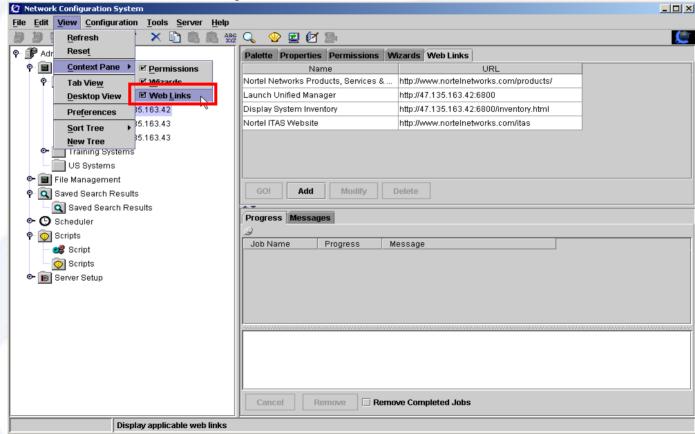


NCM - Web links

 Web links that relate to a specific BCM can be added to the data base for quick reference to the customer web site or other related tools.

Make sure that the "Web Links" option has been selected under View

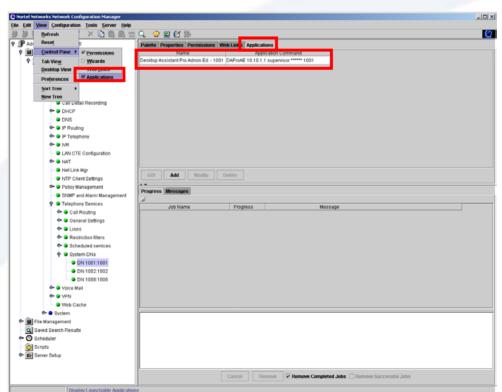
Context Pane.





NCM – Application Links

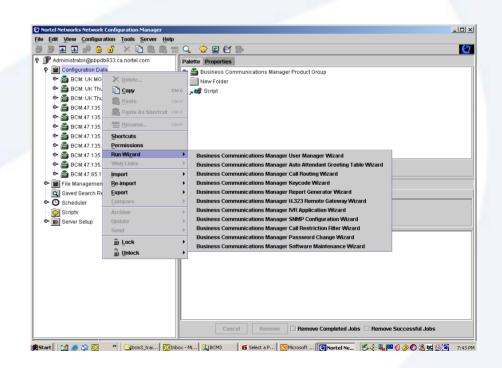
- Make sure that the "Application Links" option has been selected in the Context Pane
- BCM Monitor and Desktop Assistant Pro Admin can be launched if loaded on your PC.





NCM – Programming – Wizards

- From within NCM if you select a folder that contains a group of BCM's the Wizard menu will be available from the right click menu. If a wizard is run like this it will apply to all BCM's in the folder.
- To run wizards for a single BCM go to the BCM's configuration and select the wizards.
- All wizards can be scheduled.





NCM – Programming – Wizards

- NCM 2.0 has 11 wizards available now to BCM. They are:
 - User Manager Wizard
 Allows user, password and permission group changes on BCM.
 - AA Greeting Wizard
 Allows Auto Attendant greeting, hour and CCR tree selection on BCM.
 - Call Routing Wizard
 Allows Dialing plan management for routes and destination codes.
 - Keycode Wizard
 Allows for keycode addition to BCM.
 - Report Generator Wizard
 Allows for printable reports to be generated on BCM for System Inventory, Quick start Info, System Ids, Telephone Directory, Target Line and LAN-Wan Interfaces
 - H.323 Remote Gateway Wizard
 Allows for H.323 IP trunk remote gateway changes.



NCM – Programming – Wizards (cont'd)

- IVR Application Wizard
 Allows for IVR applications to be deployed.
- SNMP Configuration Wizard
 Allows for community strings, trap info and trap lists to be configured on BCM.
- Call Restriction Wizard
 Allows for call restriction filters to be configured on BCM
- Password Change Wizard
 Allows for passwords to be changed on BCM.
- Software Maintenance Wizard
 Allows for software maintenance and command line scripts to be run on BCM.



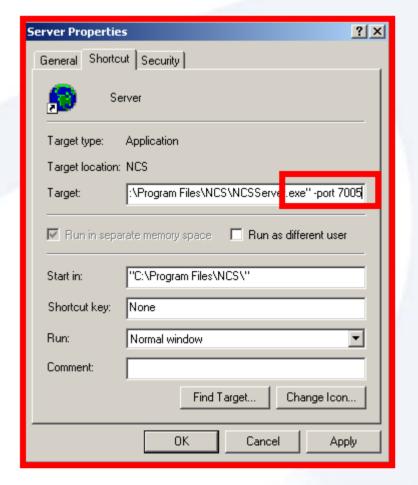
NCM - Port

By default, the NCM server uses port "7000". If you require to

change that value, you must....

Right click on Server.
 Select Properties.

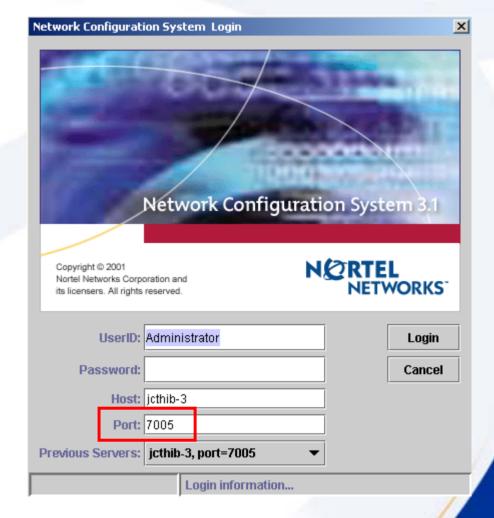
Add the value required.





NCM - Port (cont'd)

 Indicate the appropriate Port when logging into the Server with the Client.





NCM – Maintenance

If issues arise and diagnostics/maintenance needs to be performed there are log files that need to be retrieved. They are at:

- \program files\Nortel Networks\NCM\log : Log files.
 - Srvlog.txt : Server logs.
 - Errorlog.txt : Java exception
 - Auditlog.txt : BCM activity

If using the embedded Cloudscape database it is located in the following directory:

\program files \Nortel Networks \NCM\csdb: Database directory

Note: This should be backed up regularly on your server

Other NCM Locations/Directories

- \program files \Nortel Networks \NCM\registry\drivers : BCM.zip (should not be unzipped).
- \program files \Nortel Networks \NCM\database\tftp : Archived TFTP files.
- \program files\Nortel Networks \NCM\reports: HTML reports are stored here.
- \program files \Nortel Networks \NCM\help: Help files.
- \program files \Nortel Networks \NCM\jre : NCM uses it own JRE 1.3.1
- \program files \Nortel Networks \NCM\install\uninstall.exe : Uninstall program
- \program files \Nortel Networks \NCM\install\classes : NCM patches.





